

**Bidding Requirements, Contract Forms and Conditions of the Contract**  
**ADDENDUM**  
**Section 00900**

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**ADDENDUM No. 004**

Date December 16, 2014

City of Austin

Project Name **Ullrich Water Treatment Plant Structural Repairs**

C.I.P. No. 5335.012

This Addendum forms a part of Contract and clarifies, corrects or modifies original Bid Documents, dated November 17, 2014. Acknowledge receipt of this addendum in space provided on bid form. Failure to do so may subject bidder to disqualification.

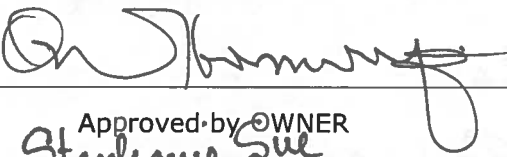
**A. Project Manual Revisions:**

1. **Replace Table of Contents** with the attached.
2. **Replace 00020 Invitation to Bidders** with the attached. Revise bid date from December 18, 2014 to December 30, 2014.
3. **Replace 00300U Bid Form** with the attached.
4. **Replace 05 50 13 Miscellaneous Metal Fabrications** with the attached.
5. **Replace 05 54 63 Floor Access Hatch Covers** with the attached.

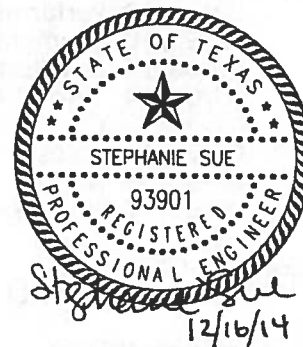
**B. Drawing Revisions:**

1. **Replace Sheet S00-01** with the attached.

This addendum consists of 25 page(s) / 1 sheet(s).

  
\_\_\_\_\_  
Approved by OWNER  
*Stephanie Sue*  
\_\_\_\_\_  
Approved by ENGINEER/ARCHITECT

**END**



<b>Document Number</b>	<b>Title</b>
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**VOLUME 1**

**INTRODUCTORY INFORMATION**

05/06/11	Title Page
11/10/14	Table of Contents

**BIDDING REQUIREMENTS, CONTRACT FORMS, & CONDITIONS OF THE CONTRACT**

**Pre-Bid Information**

00020	04/15/14	Invitation for Bids
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**Instructions to Bidders**

00100	03/06/14	Instructions to Bidders
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**Bid Forms**

00300U	03/06/14	Bid Form (Unit Price)
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**Supplements to Bid Forms**

00405	09/25/05	Certificate of Non-Suspension or Debarment
00410	05/06/11	Statement of Bidder's Safety Experience
00440	05/06/11	Affidavit - Prohibited Activities
00475	05/06/11	Nonresident Bidder Provisions

**Agreement Form**

00500	03/12/12	Agreement
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**Bonds and Certificates**

00610	02/23/10	Performance Bond
00620	02/23/10	Payment Bond
00630	03/06/14	Nondiscrimination Certificate
00631	03/06/14	Title VI Assurances Appendix A
00650	07/30/12	Certificate of Insurance
00670	03/20/14	Sales Tax Exemption Certificate
00680	06/05/06	Non-Use of Asbestos Affidavit (Prior to Construction)
00681	06/05/06	Non-Use of Asbestos Affidavit (After Construction)

**General Conditions**

00700	03/06/14	General Conditions
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**Supplementary Conditions**

00810	04/15/14	Supplemental General Conditions
00820	03/12/12	Modifications to Bidding Requirements and Contract Forms
00830	03/12/12	Wage Rates and Payroll Reporting
00830BC	<b>11/10/14</b>	Wage Rates Building Construction Trades

**Addenda**

00900	02/23/10	Addendum
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Document Number	Title
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## SPECIFICATIONS

### Division 1 - General Requirements

01010	04/22/13	Summary of Work
01030	<b>12/02/14</b>	Alternates
01050	09/13/10	Grades Lines & Levels
01095	07/21/03	Reference Standards and Definitions
01200	08/09/12	Project Meetings
01300	04/22/13	Submittals
01352	04/22/13	Sustainable Construction Requirements
01353	08/09/12	Construction Equipment Emissions Reduction Plan
01380	08/09/12	Construction Photography & Videos
01500	08/09/12	Temporary Facilities
01505	04/22/13	Construction and Demolition Waste Management
01510	02/23/10	Construction Indoor Air Quality Management Plan
01550	08/09/12	Public Safety and Convenience
01900	03/12/12	Prohibition of Asbestos Containing Materials
01900a	06/05/06	Statement of Non-Inclusion of Asbestos Containing Material (E/A Prior to Design)
01900b	06/05/06	Statement of Non-Inclusion of Asbestos Containing Material (E/A After Design)

### City Standard Technical Specifications

#### Series 400 – Concrete and Structures

403S	09/26/12	Concrete for Structures
406S	09/26/12	Reinforcing Steel

#### Series 700 -- Incidental Construction

700S	09/26/12	Mobilization
722S	09/26/12	Protective Coatings

### Special Provisions to City Standard Technical Specifications

#### Special Specifications

01 14 16	08/04/14	Coordination with Owner's Operations
01 35 26.23	08/04/14	Confined Space Entry Plan
01 45 53	08/04/14	Cleaning Testing and Disinfecting Hydraulic Structures
01 66 00	08/04/14	Product Storage and Handling
01 73 24	08/04/14	Connections to Existing Facilities
01 73 29	08/04/14	Cutting and Patching
01 74 05	08/04/14	Cleaning
02 41 00	08/04/14	Demolition
03 01 30	08/04/14	Repair and Rehabilitation of Cast-In-Place Concrete
03 11 00	08/04/14	Concrete Formwork
03 15 00	08/04/14	Concrete Accessories
03 60 00	08/04/14	Grouting
05 05 33	08/04/14	Anchor Systems
05 50 13	<b>12/16/14</b>	Miscellaneous Metal Fabrications
05 52 15	08/04/14	Aluminum Handrails and Railings
<b>05 54 63</b>	<b>12/16/14</b>	<b>Floor Access Hatch Covers</b>
07 92 00	08/04/14	Joint Sealants

**Document  
Number****Title**

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07 95 13	08/04/14	Expansion Joint Cover Assemblies
09 91 00	08/04/14	Painting
09 96 56.13	<b>12/02/14</b>	Epoxy Lining System

**VOL. 2**    10/09/00   **MBE/WBE Procurement Program Package**

**END**

**Bidding Requirements, Contract Forms and Conditions of the Contract**  
**INVITATION FOR BIDS**  
Section 00020

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Following is a summary of information for this Project. Bidder is cautioned to refer to other sections of the Project Manual, Drawings and Addenda (Bid Documents) for further details.

The City of Austin, hereafter called OWNER, is requesting sealed written Bids for furnishing all labor, materials, equipment, supervision, and incidentals, and for performing all Work required for the following Project:

**Ullrich Water Treatment Plant – Structural Repairs Project**

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Located at: Ullrich Water Treatment Plant – 1000 Forest View Drive, Austin, Texas 78746

CIP ID# 3960 2207 7192

IFB# CLMC519

The Work consists of Structural repair of miscellaneous structures throughout the Ullrich Water Treatment Plant, including:

- Surface crack repair at Upflow Clarifier No. 1
- Spall repair on wall at Recarbonation Basin for Upflow Clarifier No. 4
- Expansion joint replacement at Upflow Clarifier Nos. 6 and 7
- Guardrail anchorage replacement at Filter Building No. 2
- Expansion joint replacement under Administration Building
- Surface deterioration repair at Washwater Drain Area
- Concrete deterioration repair at Centrifuge Building
- Construction joint repair at Clearwell No. 2
- Floor coating repair in Sodium Hexametaphosphate area
- Floor deterioration repair at Lime Handling Building
- Expansion joint replacement at Centrifuge Building

***If the CD copies of the Bid Documents will be available at a different location than the One Texas Center File Room (Ste. 1045), edit the location below. Otherwise, leave as is.***

Bid Documents may be obtained at One Texas Center, 505 Barton Springs Road, Ste. 1045 (Front Desk), Austin, TX 78704. Copies will be available in CD format at no cost.

At the time Bid Documents are obtained, Bidder must provide a working e-mail address, so that they will receive any addenda or clarification issued by the Owner.

Sealed Bids will be received at the Contract Management Department, 105 W. Riverside Dr., Suite 210, Austin, Texas 78704 and then publicly opened and read aloud in the **SUITE 210 Conference Room**.

**ALL BIDS ARE DUE PRIOR TO (Austin time) 9:30 AM, December 30, 2014**.

**ALL COMPLIANCE PLANS ARE DUE PRIOR TO (Austin time) 1:30 PM, December 30, 2014**.

**BIDS WILL BE OPENED AT (Austin time) 1:30 PM, December 30, 2014**.

**ALL BIDS AND COMPLIANCE PLANS NOT RECEIVED PRIOR TO THE DATE AND TIME SET FORTH ABOVE WILL NOT BE ACCEPTED FOR CONSIDERATION.** The time stamp clock in **SUITE 210** is the time of record and is verified with [www.time.gov](http://www.time.gov), the official U.S. time.

All CONTRACTORS must be registered to do business with OWNER prior to submission of a Bid. All Subcontractors must be registered with the OWNER prior to execution of a contract. Prime Contractors are responsible for ensuring that their Subcontractors are registered as vendors with

the City of Austin. Registration can be done through the OWNER's on-line Vendor Registration system. Log onto <https://www.ci.austin.tx.us/vss/Advantage> and follow the directions.

All City procurements are subject to the City's Minority-Owned and Women-Owned Business Enterprise Procurement Program found at Chapter 2-9-A of the City Code, as amended. The Program provides Minority-Owned and Women-Owned Business Enterprises (MBEs/WBEs) or Disadvantaged Business Enterprises (DBEs) full opportunity to participate in all City contracts. Goals for MBE/WBE or DBE participation are stated for each solicitation. Information on achieving the goals or documenting good faith efforts to achieve the goals are contained in the MBE/WBE Procurement Program Package or DBE Procurement Program Package attached to the solicitation. When goals are established, Bidders are required to complete and return the MBE/WBE or DBE Compliance Plan with their Bid. If a Compliance Plan is not submitted prior to the date and time set forth in the solicitation, the Bid will not be accepted for consideration. (See Section 00820 for MBE/WBE requirements on "no goal" solicitations.)

All Bids shall be accompanied by an acceptable Bid guaranty in an amount of not less than five percent (5%) of the total Bid, as specified in Section 00100, Instructions To Bidders.

Performance and payment bonds when required shall be executed on forms furnished by OWNER. Each bond shall be issued in an amount of one hundred percent (100%) of the Contract Amount by a solvent corporate surety company authorized to do business in the State of Texas, and shall meet any other requirements established by law or by OWNER pursuant to applicable law.

Minimum insurance requirements are specified in Section 00810, Supplemental General Conditions.

Minimum wage rates have been established and are specified in Section 00830, Wage Rates and Payroll Reporting.

Contract Time is of the essence and all Work shall be substantially completed within 120 Calendar Days after date specified in the Notice to Proceed, in accordance with the Bid Form, Section 00300. Final completion shall be achieved within 30 Calendar Days after substantial completion. Liquidated damages are \$630.00 per Calendar Day for failure to substantially complete the work and \$240.00 per Calendar Day for failure to achieve final completion within 30 Calendar Days after substantial completion, in accordance with the Bid Form, Section 00300.

OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bid).

A mandatory Pre-Bid Conference will be held on November 18, 2014 at 9:30 AM. A mandatory  
(date) (time)

Site Visit will immediately follow.

(Austin time) at Ullrich Water Treatment Plant Filter Meeting Room - 1000 Forest View Drive,  
Austin, Texas 78746 (location)

Austin, Texas. Attendance is mandatory unless otherwise stated. Bidders must attend any mandatory Pre-Bid Conference and are encouraged to attend any non-mandatory Pre-Bid Conference to ensure their understanding of Owner's bidding and contracting requirements, particularly MBE/WBE Procurement Program requirements. If the Pre-Bid Conference is mandatory the Bidder must arrive and sign-in within fifteen (15) minutes of the scheduled start time of the meeting, otherwise the Bidder will not be allowed to submit a Bid for the project.

The persons listed below may be contacted for information regarding the Invitation for Bid. If the Bidder contacts any other City employee, including Council Members and members of Boards and Commissions, the Bidder may be found in violation of Ordinance No. 20111110-052, dated November 10, 2011, regarding Anti-Lobbying and Procurement. The text of that Ordinance may be viewed at <http://www.cityofaustin.org/edims/document.cfm?id=161145>.

AUTHORIZED CONTACT PERSONS

PROJECT MANAGER: Omoruyi Ebomwonyi telephone (512) 972-0237 email  
Omoruyi.Ebomwonyi@AustinTexas.gov

CONTRACT COMPLIANCE REP.: Monica Lopez telephone (512) 974-7057 email  
Monica.Lopez@AustinTexas.gov

END

**Bidding Requirements, Contract Forms and Conditions of the Contract**  
**UNIT PRICE BID FORM**  
Section 00300U

The undersigned, in compliance with the Invitation for Bids for construction of the following Project: **Ullrich Water Treatment Plant Structural Repair**

(CIP ID# 3960 2207 7192) (IFB# 6100 CLMC519) for the City of Austin, Texas, having examined the Project Manual, Drawings and Addenda, the site of the proposed Work and being familiar with all of the conditions surrounding construction of the proposed Project, having conducted all inquiries, tests and investigations deemed necessary and proper; hereby proposes to furnish all labor, permits, material, machinery, tools, supplies and equipment, and incidentals, and to perform all Work required for construction of the Project in accordance with the Project Manual, Drawings and Addenda within the time indicated for the following prices of:

Note: The Bidder will enter the line item subtotal in the "Amount" column below, which is the product of the estimated "Quantity" multiplied by the "Unit Price". Any mathematical errors will be corrected for the purpose of determining the correct Amount to be entered in the Bid Form. The Amounts, including any corrected Amounts, will then be totaled to determine the actual amount of the Bid.

<b>Bid Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Item Description</b>	<b>Unit Price</b>	<b>Amount</b>
403S-SY-10	170	SY	FLOOR TOPPING - LIME HANDLING BUILDING	\$ _____	\$ _____
700S-TM	1	LS	TOTAL MOBILIZATION PAYMENT	\$ _____	\$ _____
722S-B-01	1	LS	PROTECTIVE COATING EXISTING STRUCTURES - WEST WALL AND RAW WATER FLUME - UPFLOW CLARIFIER NO. 1	\$ _____	\$ _____
722S-B-02	1	LS	PROTECTIVE COATING EXISTING STRUCTURES - RECARBONATION BASIN - UPFLOW CLARIFIER NO. 4	\$ _____	\$ _____
03 01 30-01	1	LS	CONCRETE REPAIR OF WEST WALL, <b>NORTH WALL OF</b> RAW WATER FLUME - UPFLOW CLARIFIER NO. 1	\$ _____	\$ _____
03 01 30-02	1	LS	CONCRETE REPAIR OF RECARBONATION BASIN - UPFLOW CLARIFIER NO. 4	\$ _____	\$ _____



Bid Item	Quantity	Unit	Item Description	Unit Price	Amount
03 01 30-03	1	LS	CONCRETE REPAIR - UPFLOW CLARIFIERS 6 AND 7	\$_____	\$_____
03 01 30-04	1	LS	CONCRETE REPAIR OF DAMAGED CONCRETE - FILTER BUILDING NO. 2	\$_____	\$_____
03 01 30-05	1	LS	CONCRETE REPAIR OF DAMAGED CONCRETE ADMINISTRATION BUILDING	\$_____	\$_____
03 01 30-06	1	LS	<b>CONCRETE REPAIR OF PIPE PENETRATIONS IN WASHWATER DRAIN AREA</b>	\$_____	\$_____
03 01 30-07	1	LS	CONCRETE REPAIR OF DAMAGED CONCRETE - CENTRIFUGE BUILDING	\$_____	\$_____
03 01 30J-03	10	LF	JOINT REPAIR - UPFLOW CLARIFIERS 6 AND 7	\$_____	\$_____
03 01 30J-05	110	LF	JOINT REPAIR - ADMINISTRATION BUILDING	\$_____	\$_____
03 01 30J-08	50	LF	JOINT REPAIR - CLEARWELL NO. 2	\$_____	\$_____
03 01 30J-11	90	LF	JOINT REPAIR - CENTRIFUGE BUILDING	\$_____	\$_____
05 52 15-04	1	LS	REMOVAL AND RE-INSTALLATION OF EXISTING HANDRAIL - FILTER BUILDING 2	\$_____	\$_____
<b>05 54 63-08</b>	<b>1</b>	<b>LS</b>	<b>FLOOR ACCESS HATCH COVER AND VENT INSTALLATION - CLEARWELL NO. 2</b>	<b>\$_____</b>	<b>\$_____</b>
09 96 56-06	1	LS	EPOXY LINING SYSTEM FOR CURBS - WASHWATER DRAIN AREA	\$_____	\$_____
09 96 56-09	1	LS	EPOXY LINING SYSTEM FOR FLOOR - SODIUM HEXAMETAPHOSPHATE AREA	\$_____	\$_____
09 96 56-10	1	LS	EPOXY LINING SYSTEM FOR FLOOR - LIME HANDLING	\$_____	\$_____

**TOTAL BASE BID.....** \$\_\_\_\_\_

**ALTERNATE NO. 1**

403S-SY-	<b>330</b>	SY	ALTERNATE NO. 1 - FLOOR		
10-ALT1			TOPPING - LIME HANDLING	\$ _____	\$ _____
			BUILDING		

**TOTAL ALTERNATE NO. 1..... \$ \_\_\_\_\_**
**ALTERNATE NO. 2**

09 96 56- 1	LS	ALTERNATE NO. 2 - EPOXY		
10-ALT2		LINING SYSTEM - LIME	\$ _____	\$ _____
		HANDLING BUILDING		

**TOTAL ALTERNATE NO. 2..... \$ \_\_\_\_\_**
**TOTAL BASE BID PLUS ALTERNATE NO. 1: ..... \$ \_\_\_\_\_**
**TOTAL BASE BID PLUS ALTERNATE NO. 1 AND ALTERNATE NO. 2: \$ \_\_\_\_\_**

In the event of a mathematical error, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Bidder. The unit prices shown above will be the unit prices used to tabulate the Bid and used in the Contract, if awarded by the City.

**Notes:**

- **For information pertaining to Bid Alternate Prioritization, see Section 00820.**
- **For more detailed explanation of Bid alternates, see Section 01030.**

Optional Information on Bid Prices Submitted by Computer Printout

In lieu of handwritten unit prices in figures in ink on the Bid forms above, Bidders, at their option, may submit an original computer printout sheet bearing certification by, and signature for, the Bidding firm. The unit prices shown on acceptable printouts will be the unit prices used to tabulate the Bid and used in the Contract if awarded by the City. As a minimum, computer printouts must contain all information and in the format shown on the attached page: "Example of Bid Prices Submitted by Computer Printout" form.

If a computer printout is used, the Bidder must still execute that portion of the unit price Bid form which acknowledges the Bid Guaranty, Time of Completion, Liquidated Damages, and all addenda that may have been issued.

Bids with unit prices by computer printout may be rejected, if:

1. The computer printout does not include the required certification, set forth in the attached "Example".

2. The computer printout is not signed in the name of the firm to whom the Project Manual was issued.
3. The computer printout is non-responsive or otherwise omits required Bid items or includes items not shown on the Bid forms in the Project Manual.
4. The other required Bid documents issued by the City are not fully executed as provided above.
5. The signed Section 00300U is not returned with the signed computer printout.

If the Bid submitted by the Bidder contains both the form furnished by the City, completed according to the instructions, and also a computer printout, completed according to the instructions, unit prices of only one will be considered. In this situation, the unit Bid prices shown on the computer printout will be used to determine the Bid.

**BID GUARANTY:** A Bid guaranty must be enclosed with this Bid, as required in Section 00020 or Section 00020S, in the amount of not less than five percent (5%) of the total Bid. Following the Bid opening, submitted Bids may not be withdrawn for a period of (90) Calendar Days. Award of Contract will occur within this period, unless mutually agreed between the parties. The Bid guaranty may become the property of the OWNER, or the OWNER may pursue any other action allowed by law, if:

- Bidder withdraws a submitted Bid within the period stated above;
- Bidder fails to submit the required post Bid information within the period specified in Section 00020S or 00100, or any mutually agreed extension of that period;
- or Bidder fails to execute the Contract and furnish the prescribed documentation (bonds, insurance, etc.) needed to complete execution of the Contract within five (5) Working Days after notice of award, or any mutually agreed extension of that period.

**TIME OF COMPLETION:** The undersigned Bidder agrees to commence work on the date specified in the written "Notice to Proceed" to be issued by the OWNER and to **substantially** complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work within **One hundred twenty (120) Calendar Days**. **If a Substantial Completion date has been specified, the Bidder further agrees to reach Final Completion within Thirty (30) Calendar Days after Substantial Completion as required by the Project Manual, Drawings and Addenda for the work.** The Bidder further agrees that should the Bidder fail to **substantially complete the Work or to finally** complete the Work within the number of days indicated in the Bid or as subsequently adjusted, Bidder shall pay the liquidated damages for each consecutive day thereafter as provided below; unless the OWNER elects to pursue any other action allowed by law.

**WAIVER OF ATTORNEY FEES:** In submitting its bid, in consideration for the waiver of its right to attorney's fees by the OWNER, the Bidder knowingly and intentionally agrees to and shall waive the right to attorney's fees under Section 271.153 of the Texas Local Government Code in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to any Contract awarded pursuant to this solicitation process.

**LIQUIDATED DAMAGES:** The Bidder understands and agrees that the timely completion of the described Work is of the essence. The Bidder and OWNER further agree that the OWNER's actual damages for delay caused by failure to timely complete the Project are difficult, if not impossible to measure. However, with respect to the additional administrative and consultant costs to be incurred by OWNER, the reasonable estimate of such damages has been calculated and agreed to by OWNER and Bidder. Therefore, the Bidder and the OWNER agree that for each and every **Calendar Day** the Work or any portion thereof, remains incomplete after the **Substantial**

**Completion** date as established by the above paragraph, "Time of Completion", payment will be due to the Owner in the amount of Six hundred thirty dollars (\$ 630.00 ) per **Calendar Day** as liquidated damages, not as a penalty, but for delay damages to the OWNER. **If both Substantial and Final Completion dates have been specified, the Bidder and the OWNER further agree that for each and every Calendar Day the Work or any portion thereof, remains incomplete after the Final date as established by the above paragraph, "Time of Completion", payment will be due to the OWNER in the amount of Two hundred forty dollars (\$ 240.00 ) per Calendar Day as liquidated damages, not as a penalty, but for delay damages to the OWNER.** Such amount shall be deducted by the OWNER from any Contract payment due. In the event of a default or breach by the CONTRACTOR and demand is made upon the surety to complete the project, in accordance with the Contract Documents, the surety shall be liable for liquidated damages pursuant to the Contract Documents in the same manner as the CONTRACTOR would have been.

OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bids).

The undersigned acknowledges receipt of the following addenda:

Addendum No. 1 dated \_\_\_\_\_ Received \_\_\_\_\_  
 Addendum No. 2 dated \_\_\_\_\_ Received \_\_\_\_\_  
 Addendum No. 3 dated \_\_\_\_\_ Received \_\_\_\_\_  
 Addendum No. 4 dated \_\_\_\_\_ Received \_\_\_\_\_  
 Addendum No. 5 dated \_\_\_\_\_ Received \_\_\_\_\_

\_\_\_\_\_  
 Secretary, \*if Bidder is a Corporation

\_\_\_\_\_  
 Bidder

(Seal)

\_\_\_\_\_  
 Authorized Signature

\_\_\_\_\_  
 Title

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Address

\_\_\_\_\_  
 Telephone Number / FAX Number

\_\_\_\_\_  
 Email Address for Person Signing Bid

Email Address for Bidder's Primary Contact Person

\* Copy of Corporate Resolution and minutes with certificate of officer of Bidder as to authority of signatory to bind Bidder is to be signed and dated no earlier than one week before Bid date, and attached to this document.

**EXAMPLE: BID PRICES SUBMITTED BY COMPUTER PRINTOUT**

<b>Project Name:</b>
<b>CIP ID #:</b>
<b>IFB #:</b>

<b>Bid Item #</b>	<b>Bid Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Unit Bid Price</b>	<b>Total Amount</b>
<b>Total Bid:</b>					

(YOUR FIRM'S NAME) certifies that the unit prices shown on this completed computer printout for all of the bid items and the alternates contained in this proposal are the unit prices intended and that its Bid will be tabulated using these unit prices and no other information from this printout. (YOUR FIRM'S NAME) acknowledges and agrees that the total bid amount shown will be read as its total bid. In the event of a mathematical error, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Bidder.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**End**

## SECTION 05 50 13

### MISCELLANEOUS METAL FABRICATIONS

#### PART 1 – GENERAL

##### 1.1 DESCRIPTION

###### A. Scope:

1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish miscellaneous metal fabrications including surface preparation and shop priming.
2. The Work also includes:
  - a. Providing openings in miscellaneous metal fabrications to accommodate the Work under this and other Sections, and attaching to miscellaneous metal fabrications all items such as sleeves, bands, studs, fasteners, and all items required for which provision is not specifically included under other Sections.

###### B. Coordination:

1. Review installation procedures under this and other Sections and coordinate the Work to be installed with, or attached to miscellaneous metal fabrications Work.
2. Hot-dip Galvanizing: Coordinate with steel fabricator detailing for and fabrication of assemblies to be hot-dip galvanized, to minimize distortion during galvanizing process.

###### C. Related Sections:

1. Section 03 60 00, Grouting.
2. Section 05 05 33, Anchor Systems.
3. Section 05 52 15, Aluminum Handrails and Railings.
4. **Section 05 54 63, Floor Access Hatch Covers.**
5. Section 09 91 00, Painting,

##### 1.2 REFERENCES

###### A. Standards referenced in this Section are:

1. ANSI A14.3, Ladders – Fixed – Safety Requirements.
2. ANSI Z359.1, Safety Requirements for Personal Fall Arrest Systems, Subsystems, and Components.
3. ASTM A36/A36M, Specification for Carbon Structural Steel.
4. ASTM A53/A53M, Specification for Pipe Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
5. ASTM A123/A123M, Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

6. ASTM A153/A153M, Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
7. ASTM A240/A240M, Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications.
8. ASTM A320/A320M, Specification for Alloy-Steel and Stainless Steel Bolting Materials for Low-Temperature Service.
9. ASTM A384/A384M-02 Standard Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies.
10. ASTM A500, Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
11. ASTM A572/A572M, Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
12. ASTM A793, Specification for Rolled Floor Plate, Stainless Steel.
13. ASTM A992/A992M, Specification for Structural Steel Shapes.
14. ASTM B209, Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
15. ASTM B211, Specification for Aluminum and Aluminum-Alloy Bar, Rod and Wire.
16. ASTM B221, Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
17. ASTM B308/B308M, Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles.
18. ASTM B429, Specification for Aluminum-Alloy Extruded Structural Pipe and Tube.
19. ASTM B632/B632M, Specification for Aluminum-Alloy Rolled Tread Plate.
20. AWS D1.1/D1.1M, Structural Welding Code – Steel.
21. AWS D1.2/D1.2M, Structural Welding Code – Aluminum.
22. AWS D1.6, Structural Welding Code – Stainless Steel.
23. NAAMM, Metal Finishes Manual.

### 1.3 QUALITY ASSURANCE

#### A. Qualifications:

##### 1. Welding:

- a. Qualify welding processes and welding operators in accordance with AWS D1.1/D1.1M, D1.2/D1.2M, or D1.6, as applicable.
- b. When requested by ENGINEER, provide certification that each welder employed on or to be employed for the Work have satisfactorily passed AWS qualification tests within previous 12 months. Ensure that all certifications are current.

#### B. Regulatory Requirements: Conform to the following:

1. 29 CFR 1910, Occupational Health and Safety Standards.

### 1.4 SUBMITTALS

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A. Action Submittals: Submit the following:

1. Shop Drawings:
  - a. Fabrication and erection details for assemblies of miscellaneous metal Work. Include plans, elevations, and details of sections and connections. Show anchorage and accessory items. Include setting drawings and templates for locating and installing miscellaneous metal items and anchorage devices.
2. Product Data:
  - a. Copies of manufacturer's specifications, load tables, dimension diagrams, anchor details, and installation instructions for products to be used in miscellaneous metal Work.

B. Informational Submittals: Submit the following:

1. Test and Evaluation Reports:
  - a. Mill test report that indicate chemical and physical properties of each type of material, when requested by ENGINEER.
2. Qualifications Statements:
  - a. Copies of welder's certifications, when requested by ENGINEER.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Packing, Shipping, Handling and Unloading:

1. Deliver products to Site to ensure uninterrupted progress of the Work. Deliver anchorage materials to be embedded in other construction in ample time to prevent delaying the Work.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Steel:

1. W-Shapes and WT-Shapes: ASTM A992/A992M.
2. S-Shapes and Channels: ASTM A572/A572M, Grade 50.
3. Hollow Structural Sections: ASTM A500, Grade B.
4. Angles, Plates, Bars: ASTM A36/A36M.
5. Steel Pipe: ASTM A53/A53M, Grade B.

B. Aluminum:

1. Aluminum Shapes: ASTM B308/B308M, Alloy 6061-T6, ASTM B 221, Alloy 6061-T6.
2. Aluminum Tubes and Pipes: ASTM B429, Alloy 6061-T6.
3. Aluminum Bars and Rod: ASTM B211, Alloy 6061-T6.
4. Aluminum Plates: ASTM B209, Alloy 6061-T6.

- C. Stainless Steel:
  - 1. Plates and Sheets: ASTM A240/A240M, Type 304L or Type 316 stainless steel.
  - 2. Submerged or Intermittently Submerged: Type 316 stainless steel.
  - 3. Non-submerged: Type 304L stainless steel.
- D. Stainless Steel Fasteners and Fittings: ASTM A 320/A 320M, Type 304L or Type 316 Stainless Steel.
- E. Zinc-coated Hardware: ASTM A153/A153M.

## 2.2 MISCELLANEOUS METAL ITEMS

- A. Shop Assembly:
  - 1. Pre-assemble items in the shop to the greatest extent possible to minimize field-splicing and field-assembly of units at the Site. Disassemble units only to extent necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
- B. Miscellaneous Framing and Supports:
  - 1. Provide miscellaneous metal framing and supports that are not part of structural steel framework and are required to complete the Work.
  - 2. Fabricate miscellaneous units to sizes, shapes, and profiles shown on the Drawings or, if not shown, of required dimensions to receive adjacent grating, plates, tanks, doors, and other work to be retained by the framing.
  - 3. Except as otherwise shown, fabricate from structural shapes, plates, and bars, of all-welded construction using mitered corners, welded brackets, and splice plates and minimum number of joints for field connection.
  - 4. Cut, drill, and tap units to receive hardware and similar items to be anchored to the Work.
  - 5. Furnish units with integrally welded anchors for casting into concrete or building into masonry. Furnish inserts if units are to be installed after concrete is placed.
    - a. Except as otherwise shown, space anchors, 2.0 feet on centers, and provide units the equivalent of 1.25-inch by 1/4-inch by eight-inch strips.
    - b. Galvanize exterior miscellaneous frames and supports.
    - c. Where shown or indicated, galvanize miscellaneous frames and supports that are not to be installed outdoors.
  - 6. Miscellaneous steel framing and supports shall be hot-dip galvanized and finish-painted, unless otherwise shown or indicated.
  - 7. For railings, refer to Section 05 52 15, Aluminum Handrails and Railing.
  - 8. For grating requirements refer to Section 05 53 16, Aluminum Grating.
  - 9. Surface preparation and painting of galvanized surface shall conform to Section 09 91 00, Painting

- C. Fasteners and Hardware: Provide Type 316 stainless steel fasteners for aluminum fabrications and zinc-coated hardware for galvanized fabrications, unless otherwise shown or specified.
- D. Anchors and Expansion Anchors: Refer to Section 05 05 33, Anchor Systems.

## 2.3 FINISHING

- A. Surface Preparation and Shop Priming: Perform surface preparation and apply primer coat to miscellaneous metal fabrications in the shop. Conform to surface preparation and shop priming requirements in Section 09 91 00, Painting.
- B. Galvanizing:
  - 1. Galvanizing of fabricated steel items shall comply with ASTM A123/A123M.
  - 2. Details of fabrication of steel items and assemblies to be hot-dip galvanized shall conform to recommendations of ASTM A384/A384M to minimize the potential for distortion.
- C. Aluminum Finish: Provide natural mill finish for aluminum Work unless otherwise shown or specified.

## 2.4 SOURCE QUALITY CONTROL

- A. Tests and Inspections:
  - 1. Materials and fabrication procedures shall be subject to inspection and tests in the mill, shop, and field, conducted by a qualified inspection agency. Such inspections and tests will not relieve CONTRACTOR of responsibility for providing materials and fabrication procedures complying with the Contract Documents.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Examine conditions under which the Work is to be performed and notify ENGINEER in writing of conditions detrimental to the proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions are corrected.

### 3.2 INSTALLATION

- A. Install miscellaneous metal fabrications accurately in location, alignment, and elevation, plumb, level, true, and free of rack, measured from established lines and levels. Brace temporarily or anchor temporarily in formwork where fabrications are to be built into concrete, masonry, or other construction.

- B. Anchor securely as shown and as required for the intended use, using concealed anchors where possible.
- C. Fit exposed connections accurately together to form tight, hairline joints. Field-weld steel connections that are not to be exposed joints and cannot be shop-welded because of shipping size limitations. Comply with AWS D1.1/D1.1M, D1.2/D1.2M and D1.6, as applicable to the material being welded. Grind steel joints smooth and touch-up shop paint coat. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication, and are intended for bolted or screwed field connections.
- D. Protection of Aluminum from Dissimilar Materials:
  - 1. Coat surfaces of aluminum that will contact dissimilar materials such as concrete, masonry, and steel, in accordance with Section 09 91 00, Painting.

### 3.3 MEASUREMENTS AND PAYMENT

- A. No direct measurement or payment will be made for materials, equipment or labor to be furnished under this item, but shall be considered subsidiary to Section 05 52 15 – Aluminum Handrails and Railing, Section 03 31 30 – Repair and Rehabilitation of Cast-In-Place Concrete, and **Section 05 54 63 – Floor Access Hatch Covers.**

++ END OF SECTION ++

## SECTION 05 54 63

### FLOOR ACCESS HATCH COVERS

#### PART 1 – GENERAL

##### 1.1 DESCRIPTION

###### A. Scope:

1. CONTRACTOR shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install floor access hatch covers.
2. The Work also includes:
  - a. Providing openings in and attachments to floor access hatch covers to accommodate the Work under this and other Sections, and providing for floor access hatch covers items such as anchorage devices, and all items required for which provision is not specifically included under other Sections.

###### B. Coordination:

1. Review installation procedures under this and other Sections and coordinate the installation of items to be installed with or before floor access hatch covers Work.

###### C. Related Sections:

1. **Section 05 50 13, Miscellaneous Metal Fabrications**
2. Section 09 91 00, Painting.

##### 1.2 REFERENCES

###### A. Standards referenced in this Section:

1. AASHTO Standard Specifications for Highway Bridges.
2. MIL-P-21035B, Military Specification, Paint, High Zinc Dust Content Galvanizing Repair.

##### 1.3 QUALITY ASSURANCE

###### A. Qualifications:

###### 1. Manufacturer:

- a. Manufacturer shall have not less than five years experience producing products substantially similar to those specified and, upon ENGINEER's request, shall submit documentation of not less than five satisfactory installations in place for not less than five years each.

###### B. Component Supply and Compatibility:

1. Obtain all products included in this Section regardless of the component manufacturer from a single floor access hatch covers manufacturer. Furnishing covers from more than one manufacturer is unacceptable.
2. Floor access hatch covers manufacturer shall prepare, or shall review and approve, all Shop Drawings and other submittals for all components furnished under this Section.
3. Components shall be suitable for specified service conditions and shall be integrated into the overall assembly by the floor access hatch covers manufacturer.

#### 1.4 SUBMITTALS

A. Action Submittals: Submit the following:

1. Shop Drawings:
  - a. Detailed plans and other drawings showing location of products and direction of door swing; floor access hatch cover schedules indicating cover location, material, type, loading capacity, and other information; and fabrication details for the access hatch covers Work, including materials, thickness of metals, finishes, latching or locking provisions, type of anchorages, and accessory items.
2. Product Data:
  - a. Copies of manufacturer's literature and specifications for each type of floor access hatch incorporated in the Work.

B. Informational Submittals: Submit the following:

1. Supplier Instructions:
  - a. Installation data, including setting drawings and templates.

#### 1.4 DELIVERY, STORAGE AND HANDLING

A. Packing and Shipping:

1. Protect mill finish and other finish during shipping and installation by an attached, adhesive-backed vinyl material that is removable during and after installation of the access hatch cover.

B. Storage and Protection:

1. Protect steel members and packaged materials from corrosion and deterioration.

#### 1.5 WARRANTY

- A. General Warranty: The special warranty specified in this Article shall not deprive OWNER of other rights or remedies OWNER may otherwise have under the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by CONTRACTOR under the Contract Documents. The obligations of CONTRACTOR under the Contract Documents shall not be limited in any way by the provisions of the specified special warranty.

B. Special Warranty:

1. Provide manufacturer's written warranty, running to the benefit of OWNER, agreeing to correct, or at option of OWNER, remove or replace structural components of the products specified in this Section found to have defect in material and workmanship during a period of five years after the date of Substantial Completion.

**PART 2 – PRODUCTS**

**2.1 GENERAL**

A. General:

1. Provide manufacturer's standard fabricated access hatch cover units, modified when necessary to comply with the Contract Documents. Where standard units are not available for the sizes and types required, provide custom-fabricated units of the same quality as manufacturer's similar standard-sized units.
2. Fabricate each access hatch cover unit in the shop, complete with anchors, gaskets, hardware, and accessory items, as required.
3. Galvanizing Repair Paint: For repairing damaged galvanized surfaces, provide high zinc-dust content paint complying with MIL-P-21035B.

- B. Provide floor access hatch covers in accordance with Table 05 54 63-A, Floor Access Hatch Covers Schedule:

**TABLE 05 54 63-A, FLOOR ACCESS HATCH COVERS SCHEDULE**

Hatch No.	Size		Material	Leaf Type	Frame Type	Remarks
	Width (inches)	Length <sup>1</sup> (inches)				
1	36	36	Stainless Steel	Double	Channel	Clearwell 2
Notes:						
1. On single-leaf floor access hatches, length includes the hinge side.						

**2.2 CHANNEL-FRAME TYPE ACCESS HATCH COVERS**

A. Stainless Steel Floor Access Hatch Covers – Channel Frame Type:

1. Design Live Load: 300 pounds per square foot.
2. Products and Manufacturers: Provide one of the following:
  - a. Single-Leaf Door Stainless Steel Access Hatch Cover:
    - 1) Model TPS, by U.S.F. Fabrication, Inc.
    - 2) Type J-SS, by The Bilco Company.
    - 3) Or equal.
  - b. Double-Leaf Door Stainless Steel Access Hatch Cover
    - 1) Model TPD, by U.S.F. Fabrication, Inc.

- 2) Type JD-SS, by The Bilco Company.
- 3) Or equal.
- 3. Cover: Not less than 1/4-inch thick, Type 316 stainless steel diamond-pattern plate cover. Provide flush drop handle for lifting the cover.
- 4. Frame: Type 316 stainless steel channel frame with manufacturer's standard anchor tabs or continuous anchor flange around the perimeter for anchorage to concrete.
- 5. Drain Coupling: 1.5-inch diameter NPT threaded drain coupling welded under the channel frame for connection of a drain pipe.
- 6. Gasket: Neoprene gasket mechanically attached to the channel frame.
- 7. Hinges: Tamper-resistant, heavy-duty hinges with Type 316 stainless steel pin fastened to door with Type 316 stainless steel tamper-resistant bolts.
- 8. Latch: Type 316 stainless steel, watertight, slam-type latch with inside lever handle and outside, removable exterior turn/lift handle fastened to leaf (door) with tamper-resistant Type 316 stainless steel bolts. Latch release shall be protected by a flush, gasketed, removable screw plug.
- 9. Lift Assistance: Open-style stainless steel compression springs with Type 316 stainless steel guide tubes. Automatic Type 316 stainless steel hold-open arm with grip handle release.
- 10. Fall-Through Prevention System: Provide access hatch cover manufacturer's standard safety grating of FRP or aluminum, constructed for live load capacity of not less than 300 psf. Provide hinges and lift-assist to allow grating sections to automatically lock in place in full-open 90-degree position. Provide hold-open arm and release assembly of aluminum or Type 316 stainless steel. Grating shall be colored OSHA "Safety Yellow" or "Safety Orange".
- 11. Finish: Type 316 stainless steel.

### PART 3 – EXECUTION

#### 3.1 INSPECTION

- A. Examine areas and conditions under which floor access hatch cover Work will be performed and notify ENGINEER in writing of conditions detrimental to proper and timely completion of the Work. Do not proceed with the Work until unsatisfactory conditions are corrected.

#### 3.2 INSTALLATION

- A. Install floor access hatch covers in accordance with approved Shop Drawings and other approved submittals, the Contract Documents, and manufacturer's instructions.
- B. Set floor access hatch covers level and true to line or grade, without warp or rack.
- C. Drain Piping for Channel Frames:

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1. Provide drain piping from the floor access match cover channel frame routed as shown or indicated on the Drawings.
1. Provide drain piping from the floor access hatch cover channel frame and route to the nearest floor drain or sump pit in a manner that does not obstruct access for facility operations and maintenance.
2. After installation, fill drain piping with water. Drain piping shall be free of visible leaks.

### 3.3 ADJUSTING AND CLEANING

- A. Adjust leafs of floor access hatch covers as necessary to provide proper operations.
- B. Remove stains, concrete splatter, oils, grease, and other foreign materials necessary and provide clean, finished surfaces.

### 3.4 MEASUREMENT AND PAYMENT

- A. The work performed and the materials furnished under this item will be measured by lump sum. The work performed and materials furnished and measured as provided under "Measurement" will be paid for at the unit bid price and complete in place under the pay item of "Floor Access Hatch Cover and Vent Installation – Clearwell No. 2".
- B. The price for "Floor Access Hatch Cover and Vent Installation – Clearwell No. 2" includes but is not limited to full compensation for sawcutting hole for hatch cover and sawcutting hole for vent into Clearwell No. 2, installing access hatch in opening, installing vent in opening, access hatch concrete collar, access hatch waterstop installation, and painting, including placing all materials, labor, tools, equipment, inspection, and incidentals necessary to install access hatch and vent.

Payment will be made under:

Pay Items 05 54 63-08	Floor Access Hatch Cover and Installation – Clearwell No. 2	Per Lump Sum.
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++ END OF SECTION ++

